



Remote Camera Control Application

# User Manual

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# Introduction

This document explains Remote Camera Control Application (hereafter referred to as “this software”) settings and operations. Carefully read this document before use to ensure correct use of this software.

## Trademarks

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- Microsoft and Windows are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
- Windows is legally recognized as the Microsoft Windows Operating System.
- All other company or product names used in this document are trademarks or registered trademarks of their respective holders.

This document is intended to be read on a computer screen.



## ■ Notes

1. Any unauthorized reproduction of this document is prohibited.
2. The contents of this document are subject to change without any prior notice.
3. This document has been prepared with the utmost attention to accuracy. For questions or comments, please contact a Canon sales representative.
4. Canon shall assume no liability for any outcome of using this product, notwithstanding items 2 and 3 above.

## ■ Software Screenshots

The software screenshots samples shown in this document are for illustration only. The screenshots may differ from the actual screens displayed. Descriptions use Windows 10 for sample screens.

## ■ Symbols Used in This Document

Symbol	Meaning
 Important	Cautions and restrictions during operation. Make sure to read these carefully.
 Note	Supplementary descriptions and reference information.

# What Is Possible With the Remote Camera Control Application

This software can be used to operate Canon remote cameras (hereafter referred to as “cameras”) while watching the video. This software is capable of the following:

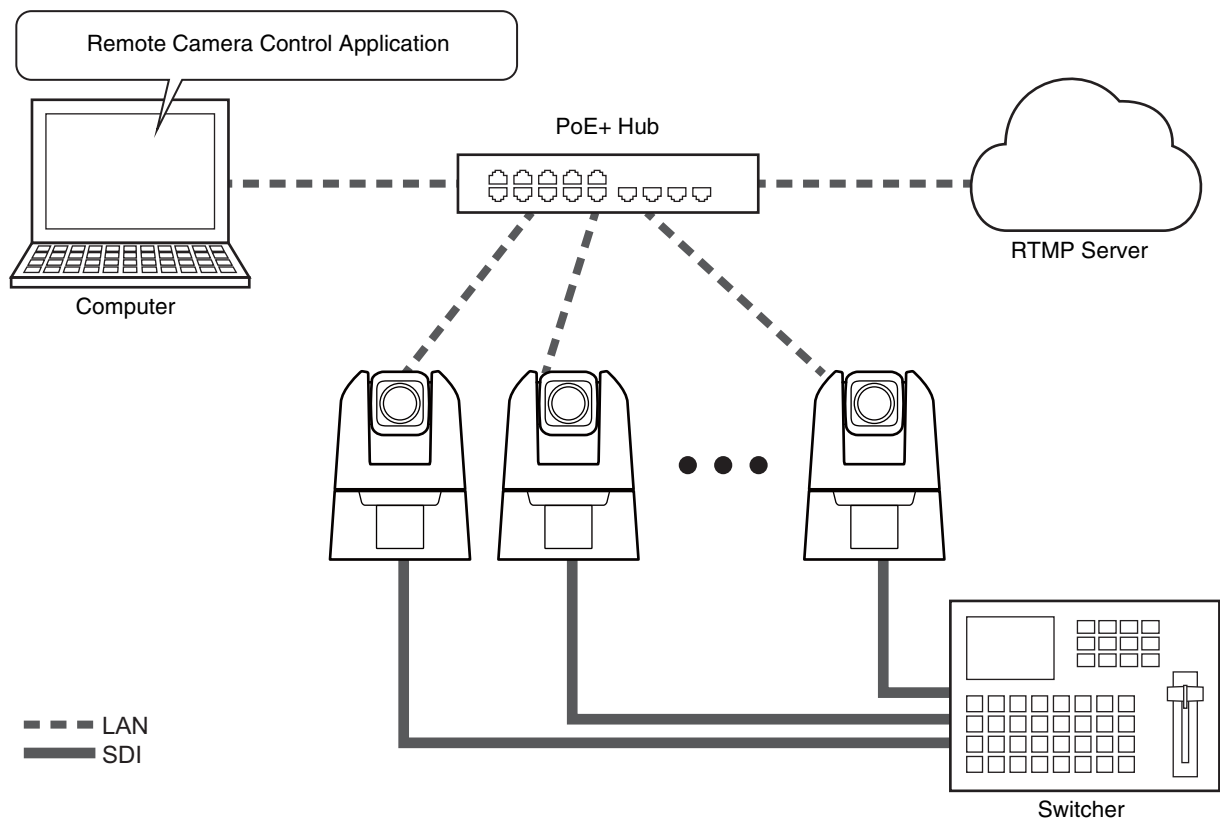
- **Operation of registered cameras (P. 17)**  
Pan/Tilt/Zoom, focus operation, and video quality adjustment are available for registered cameras.
- **Simultaneous operation of multiple cameras (P. 17)**  
Simultaneous Pan/Tilt/Zoom and focus operation are available for multiple cameras. It is possible to reproduce the preset position registered to the camera.
- **Trace function (P. 34)**  
Registered settings such as camera movement and video quality can be applied at a later time.
- **Camera operation via keyboard or joystick (P. 37)**  
Cameras can be operated via keyboard or joystick. Operations can be configured according to use.

For camera operations and features, refer to the Settings Guide of each camera. Also, make sure to configure initial camera settings before using this software.

Some features and settings are not supported depending on the camera you are using.

## Examples of System Configuration

The following system configuration is available by combining this software with a switcher and a joystick.



# Operating Environment

For the latest information on this product (user manuals, operating environment, etc.), please refer to the Canon website.

## System Requirements

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### ■ Supported Cameras

Refer to the “Remote Camera Control Application Compatible Cameras” from the website along with the User Manual. The screenshots may differ depending on the firmware version of the camera. Update the camera to the latest firmware.

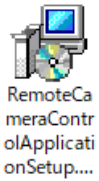
## Limitations

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- Make sure to exit all other applications before using this software.
- Although communication via HTTP proxy is supported, this feature depends on the environmental variables and network settings of the computer on which it is running.
- HTTP proxy authentication is not supported.
- The computer will not automatically go into sleep or suspend mode while this software is communicating with a camera. It is, however, possible to manually put the computer into sleep or suspend mode during communication.
- When launching this software, sometimes the following message appears: “Do you want to run this file?” Click [Run] to continue launching the software.
- If multiple IPv4 addresses (other than AutoIP) are set on the same computer when using multiple network cards, normal communication may not be possible. If this happens, it is necessary to temporarily switch to a single IPv4 address.
- Check the Canon website for the latest operating environment information when applying a service pack or updating the operating system.

# Installation

- 1 Double-click [RemoteCameraControlApplicationSetup.exe] in the installation package.



The installation screen appears.

- 2 Follow the instructions on the screen and when the installation complete window appears, click [Close].

Double-click on the software added to the desktop to start.

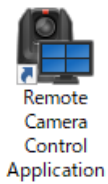
## Note

To use this software on a computer with an active Windows firewall, it must be registered as an allowed application for communication via the firewall. If not registered, the software will be blocked by the firewall when launched, but can be authorized by clicking [Yes] when the [Windows Security Alert] dialog appears.

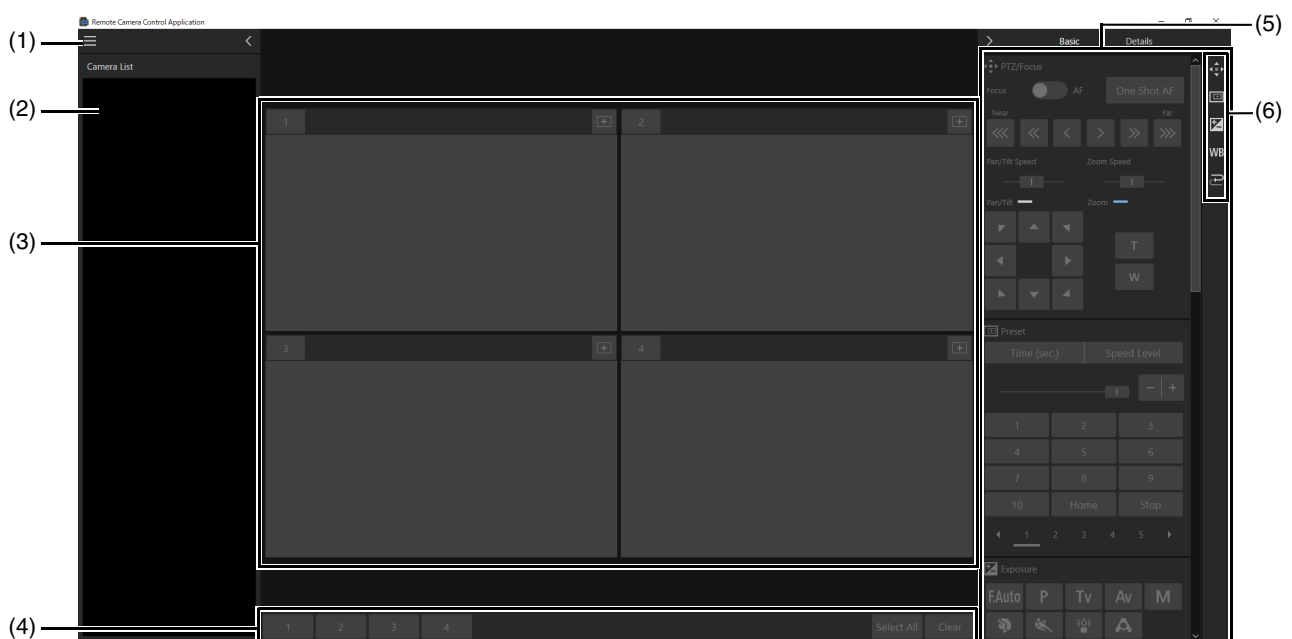






# Launching the Remote Camera Control Application

When this software is installed, the Remote Camera Control Application icon appears in the desktop. Double-click the icon to launch this software and display the main screen.






## Main Screen



- (1) **Menu button**  
Displays the menu.
- (2) **[Camera List] (P. 14)**  
Displays the camera name and thumbnail when a camera is registered. Click  to hide the list and  to show it.
- (3) **Video display area (P. 15)**  
Displays the video of the camera selected in [Camera List]. The number of video display areas can be changed.
- (4) **Camera selection buttons (P. 17)**  
Selects the camera to operate.
- (5) **Camera operation area (P. 19)**  
Pan/Tilt/Zoom operation, focus operation, and video quality adjustment etc., are available. Able to change the operation tab by clicking [Basic] or [Details]. Click  to hide the area and  to show it.
- (6) **Display item selection buttons**  
Items displayed in the camera operation area can be selected. An orange line appears on displayed item buttons. Item details are as follows:


### [Basic]

-  PTZ/Focus
-  Preset
-  Exposure

 White balance

 Trace

### [Details]

 Custom Picture

 White Balance


 Image Quality

 Focus

 Exposure

 Recording/Media

 Other Functions

 Menu Operation


 Assignable Button

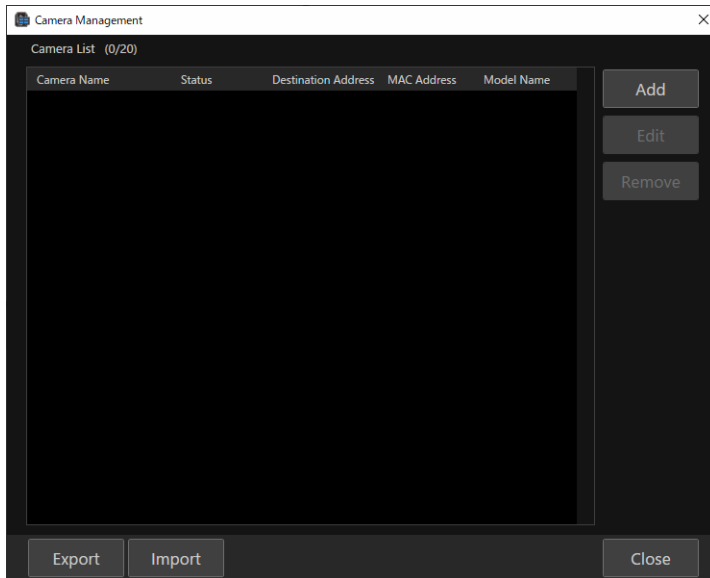
### Note

Click the menu  and select [Full-Screen Mode] to hide the title bar and Windows taskbar.  
To exit full screen mode, click the menu  and select [Exit Full Screen Mode].

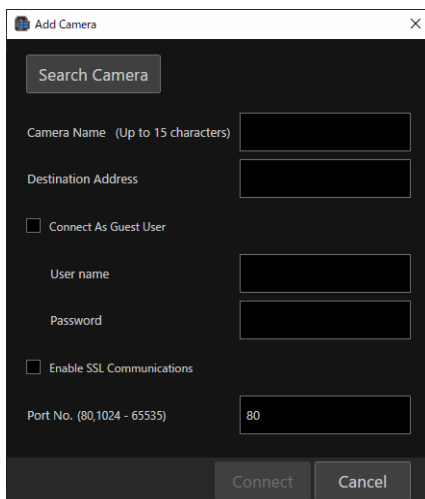
# Registering Cameras

Before registering the camera in this software, perform initial settings such as user settings and network connection. The camera can be registered even in standby.

- 1 Click the menu  and select [Camera Management].
- 2 In the [Camera Management] dialog, click [Add].

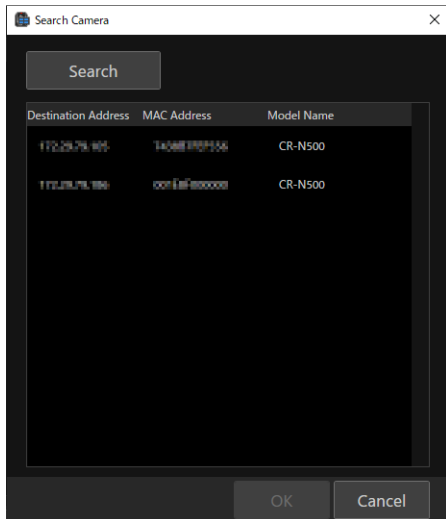


- 3 In the [Add Camera] dialog, click [Search Camera].



Cameras are searched for on the network and displayed in a list in the [Search Camera] dialog. Directly entering all items without searching makes it possible to directly specify a camera to register.

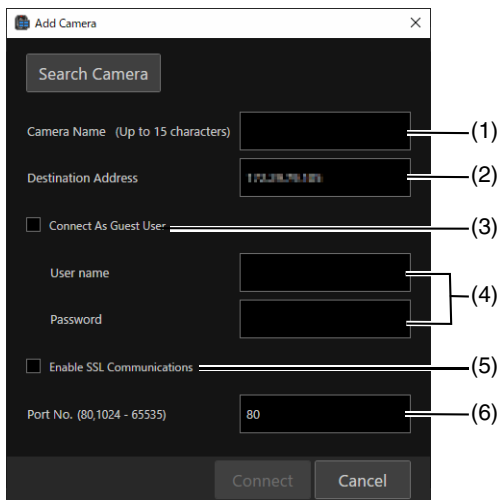
#### 4 Select a camera to register, then click [OK].



#### Note

- To search for a camera again, click [Search].
- Cameras that have already been registered will not be displayed.

#### 5 Enter the following items in the [Add Camera] dialog.



#### (1) [Camera Name]

Decide on the name to be displayed on this software. Enter any name within 15 characters. The name entered here can be changed later.

#### (2) [Destination Address]

The IP address of the searched camera is automatically entered. If the IP address is changed on the Camera's Settings Page, change the destination address in the [Edit Camera] dialog.

#### (3) [Connect As Guest User]

Select this checkbox to skip entering the user name and password. On the Camera's Settings Page, the camera control and video distribution privileges must be granted to guest users.

#### (4) [User name], [Password]

Enter the user name and password for either the camera administrator or registered user. To add a camera with a registered user, it is necessary to grant the registered user "camera control" and "video distribution" privileges on the Camera's Settings Page.

(5) [Enable SSL Communications]

Check the [Enable SSL Communications] checkbox to connect to the camera via HTTPS. Configure settings to enable SSL communication by the camera to be registered.

(6) [Port No.]

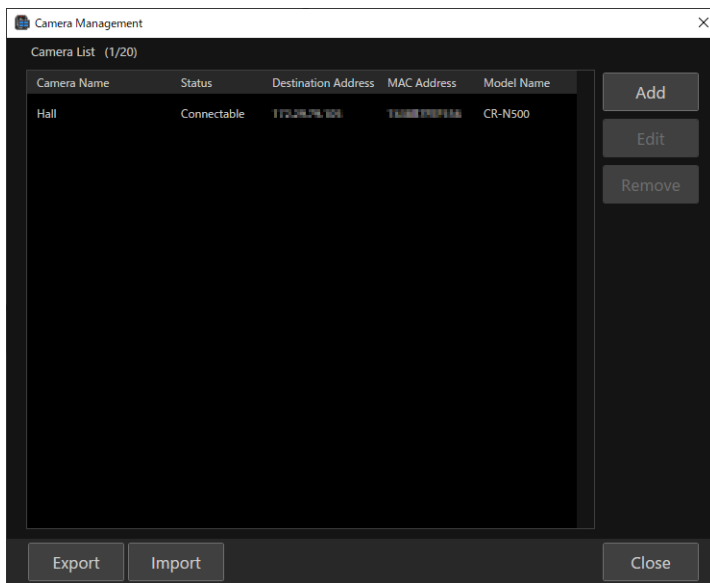
Enter the camera port number.

 Note

- The camera name set on the Camera Settings Page will remain the same even if it is changed on this software. Also, the camera name registered on this software will remain the same even if it is changed on the Settings Page.
- To change the camera name, edit [Camera Name] in the [Edit Camera] dialog.
- Configure camera settings such as user privileges on the Camera Settings Page. For further details, see the camera User Manual.

**6** Click [Connect].

The camera is registered and displayed in the [Camera Management] dialog.



The camera status is displayed as follows in [Status]:

[Connectable]: Camera connected

[Not connectable]: Camera disconnected

[Standby]: Camera on standby

[Switching to Standby]: Camera entering standby

[Startup in progress]: Camera switching from standby to startup

No display: Loading from import (P. 42) file

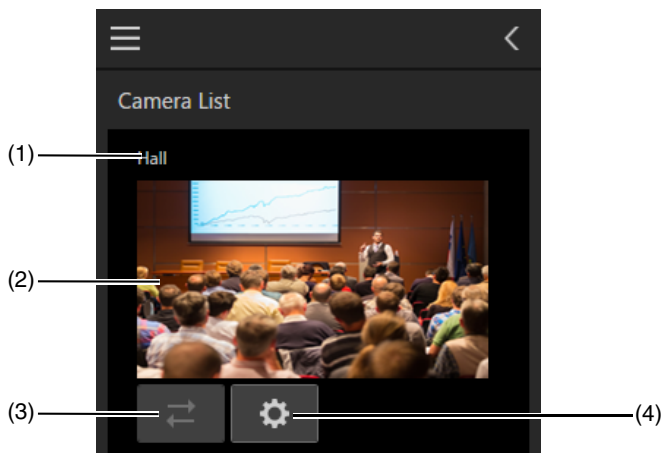
 Note



- By clicking the title, it is possible to sort the registered cameras by the clicked item. ▲ and ▼ are displayed for the item name used for sorting.
- Click [Export] or [Import] in the [Camera Management] to export or import the registered camera list. For details, refer to "Exporting or Importing the Settings" (P. 42).

## Camera List

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Registered cameras are displayed in the camera list.



- (1) **Camera name**  
Displays registered camera name.
- (2) **Status display area**  
The following is displayed depending in camera status:
  - Video displayed: Camera connected, power on
  -  displayed: Camera connected, in standby
  -  displayed: Camera disconnected
- (3) **Reconnect button**  
Reconnects to the camera. This is available when the camera is not connected.
- (4) **Settings Page display button**  
This launches a web browser and displays the Camera's Settings Page. An administrator account user name and password are required to display the Settings Page.

## Editing Camera Information

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Select a camera whose information to edit in [Camera List] and click [Edit]. Edit the camera information in the [Edit Camera] dialog, then click [Connect].

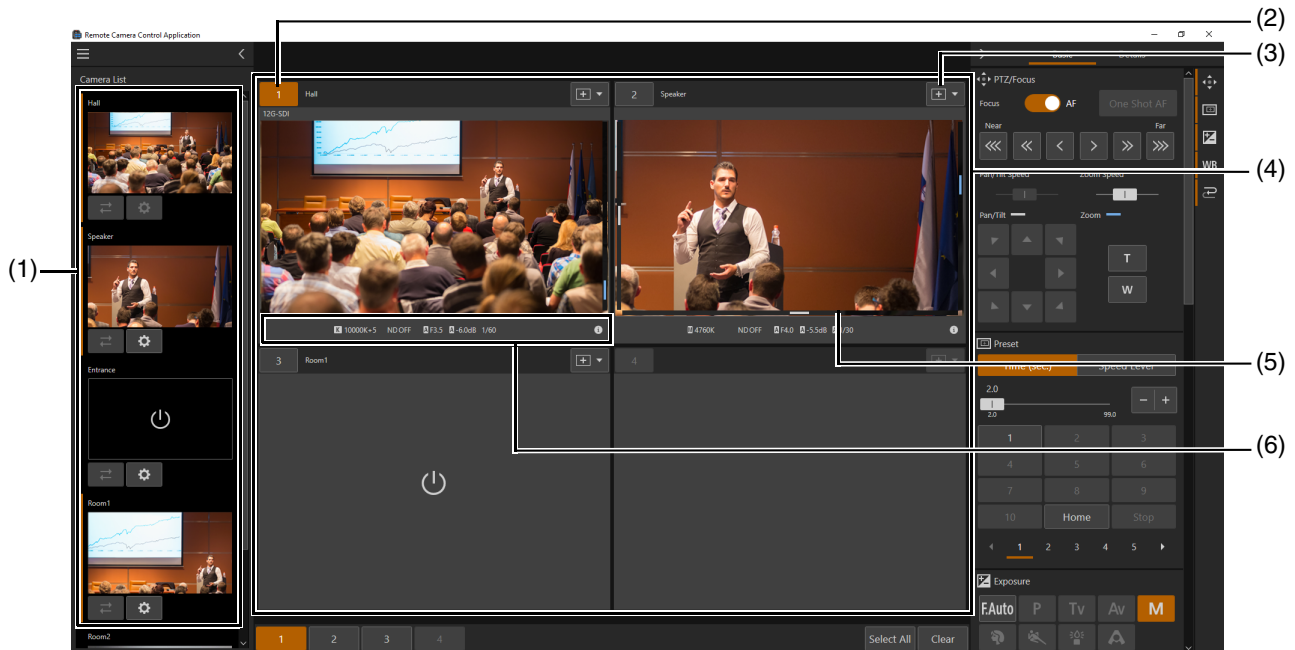
## Removing Cameras

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Select a camera to remove from in [Camera List] and click [Remove] to remove the selected camera.

# Displaying Camera Video in the Video Display Area

Click a camera in the camera list to display its video in the video display area.



## (1) [Camera List]

Click the displayed camera to show/hide the video in the video display area. Cameras whose video is shown in the video display area are indicated with an orange line.

## (2) Camera number

The camera number for the video display area is displayed. The camera number is assigned according to the video display area layout in the display order, starting with 1. For details, refer to “Changing the Video Display Area Layout” (P. 16).

## (3) Operation Selection Button

By clicking the button on the upper right of the image display of each camera, it is possible to switch the operation when the video is clicked.

: Moves camera angle so that the clicked position is in the center of the screen.

: Focus is adjusted to the clicked position. For further details, refer to “[PTZ/Focus]” (P. 19).

: The Focus Guide is displayed at the clicked position. For details, refer to “[Focus Guide]” (P. 21).

: Disables operation when the video is clicked.

## (4) Video display area

Displays camera video. The pan/tilt position is displayed at the left and bottom edges of the image, and the zoom position is displayed at the right edge.

: The camera is on standby.

: Not connected to the camera.


## (5) Tally lamp display

The camera tally lamp status is displayed by color of box. In the case of PGM, it is displayed by a red box, PVW by a green box and PGM+PVW by an amber box.

## (6) Shooting information view

The settings of each camera are displayed.

## Changing the Video Display Area Layout

Click the menu  and select [Video Layout] to change the video display area layout (number of displayed cameras or video size).

For example, if [1+5] is clicked, one large video and five small videos are displayed. Cameras are assigned numbers in the video display area in the display order.







# Selecting Cameras to Operate

Select cameras to operate from this software.

## Turning On the Camera

All cameras can be turned on or put into standby simultaneously using this software.

- **Turning on the cameras**  
Click the menu  and select [Camera Power] > [All On]. All cameras on standby in the video display area are turned on.
- **Setting cameras to standby**  
Click the menu  and select [Camera Power] > [All Standby]. All cameras in the video display area are set to standby.

## Recording Camera Video

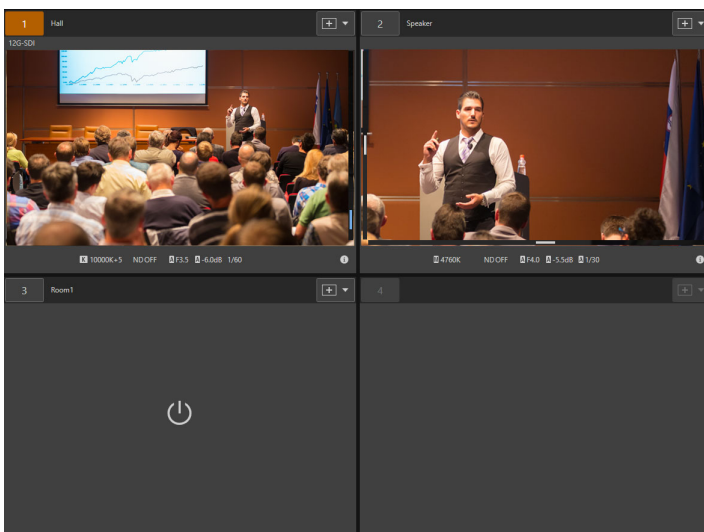
All camera video can be recorded and recording can be stopped using this software.

- **Starting recording**  
Click the menu , and select [Recording/Media] > [Start Recording All]. Recording of all cameras displayed in the video display area is started.
- **Stopping recording**  
Click the menu , and select [Recording/Media] > [Stop Recording All]. Recording of all cameras displayed in the video display area is stopped.

## Selecting a Camera to Operate

First, click the camera number and select a camera to operate.

In order to select the cameras to operate, click the camera number of the target cameras in the video display area. The selected camera number turns orange.



## ■ Camera Selection Buttons



The camera selection button number corresponds to the number of the camera in the video display area.

Click [Select All] to select all cameras shown in the video display area as cameras to operate.

Click [Clear] to deselect all cameras displayed in the video display area.

### Note

The camera numbers of those not displaying the video in the video display area, on standby, or disconnected are indicated in gray.

# Operating Cameras

Cameras can be operated using this software. It is also possible to operate multiple cameras simultaneously. Items that cannot be used depending on the model are indicated in gray.

## Note

Detailed settings that cannot be changed in the camera operation area of this software need to be configured on the Camera's Settings Page. For details on the Settings Page, refer to the user manual of the camera.

## [Basic] Tab

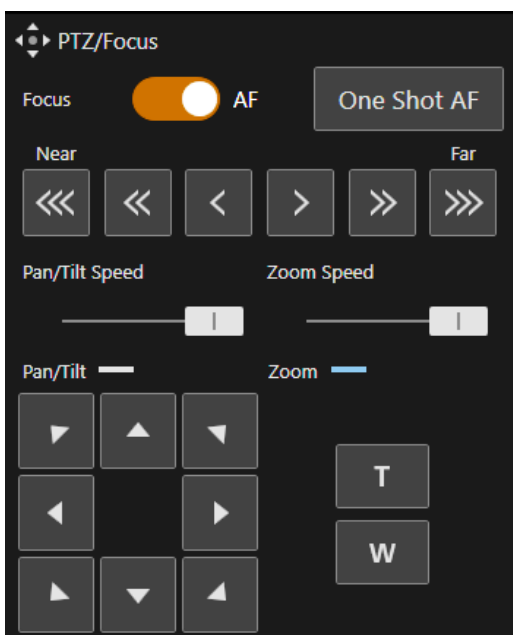
Pan/Tilt/Zoom as well as focus operations, preset movement, trace execution, exposure adjustment, and white balance adjustment are available in the camera operation area.

Pan/Tilt/Zoom as well as focus operations, preset movement, and trace execution can be executed simultaneously when operating multiple cameras.

Exposure and white balance adjustment are only available when operating a single camera.

## [PTZ/Focus]

Pan/Tilt/Zoom and focus operations of the Camera are available in this software.



### [Focus]

Changes the focus settings. Autofocus is enabled when [AF] is set for [Focus], and manual focus is enabled when [AF] is off.

#### [Near], [Far]

Click [ <<< ] [ << ] [ < ] to set the focus position to the near end, and click [ >>> ] [ >> ] [ > ] to set it to the far end. [Near] [Far] can each be adjusted in each direction in three speeds [ <<< ] [ << ] [ < ] or [ >>> ] [ >> ] [ > ]. Click the buttons to continue moving the focus position. With autofocus, the focus is automatically adjusted once the button is released.

#### [One Shot AF]

By clicking [One Shot AF], once the focus is adjusted by autofocus, the focus will be fixed regardless of the status before clicking. Even before clicking, if the setting is for autofocus, once [One Shot AF] is clicked, it will be on manual focus.

## Note

- Depending on the model being used, autofocus or tracking may not be possible at the edges of the screen.
- If the zoom is operated after manually adjusting the focus, the focus may shift.

- When using manual focus, if the camera is left turned on, the focus may shift due to increase in the temperature of the lens and inside the camera body. Make sure to recheck the focus before beginning shooting.

**[Pan/Tilt Speed]**

Changes the pan and tilt speed. Drag the slider knob to the right to increase camera’s operation speed and to the left to decrease it.

**[Pan/Tilt]**

Moves the angle in the direction of each arrow. Click and hold to continue and release to stop.

**[Zoom Speed]**


Changes the zoom speed. Drag the slider knob to the right to increase zoom speed and to the left to decrease it.

**[Zoom]**

Click the **T** or **W** button to operate the zoom. Click and hold to continue and release to stop.

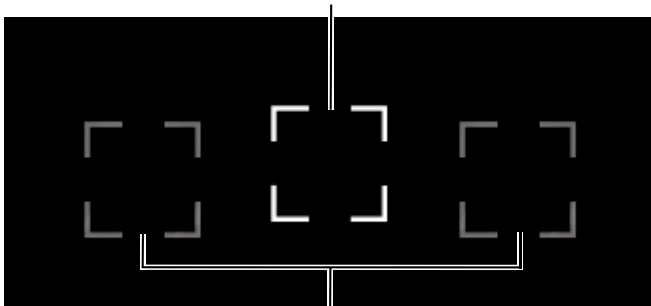
## Clicking on the Screen

**Autofocus**

When the operation selection button is set to , and there is a face of a person in the screen, a face frame appears and preferentially adjusts the focus to that face. When multiple people are in the screen, the main subject is automatically determined, and the following face frames are displayed.

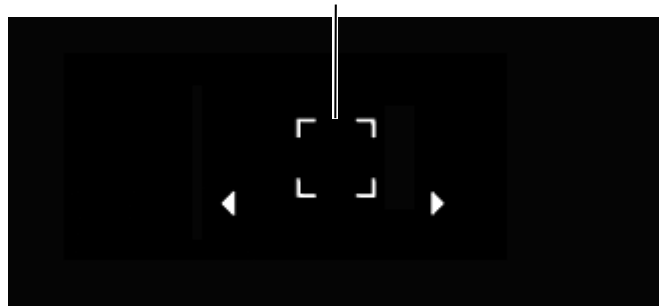
When Eye Detection is enabled, a guide frame is displayed at the eye of the face that is judged to be the main subject.


Frame representing the main face (if even one face)



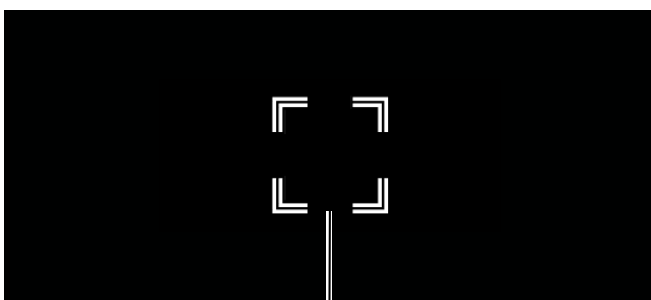
Frame representing a non-main face

Eye detection frame: Eye of subject detected as the main subject



When the operation selection button is set to  and there is no face of a person in the screen, the focus will be adjusted to the center of the screen.

Also, clicking a subject displays a tracking frame. Even if the subject or the person moves in the screen, it is possible to continue to focus on as the main subject. By clicking the screen during tracking, tracking will be canceled.




Tracking frame

 **Note**

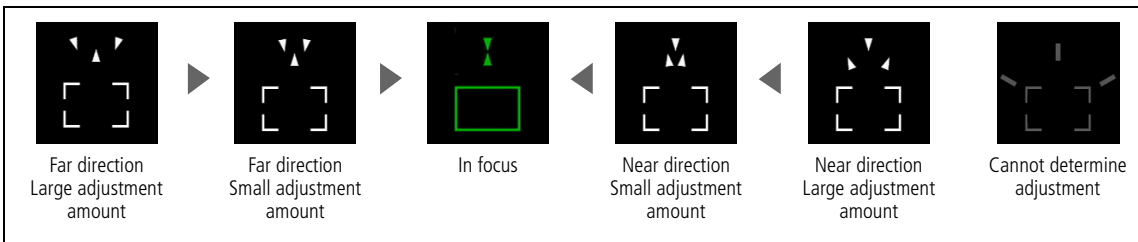
- The following are the main examples of failure to detect faces:
  - When the face is extremely small, large, dark, or bright relative to the entire screen
  - When the face is facing sideways or diagonally, or when the face is upside down
  - When part of the face is hidden
- The system may accidentally track another subject with similar characteristics. In this case, select the subject again.

**Manual Focus**

When the operation selection button is set to , by clicking on the camera video, the focus will be adjusted to the clicked position with autofocus and then fixed.

## ■ [Focus Guide]

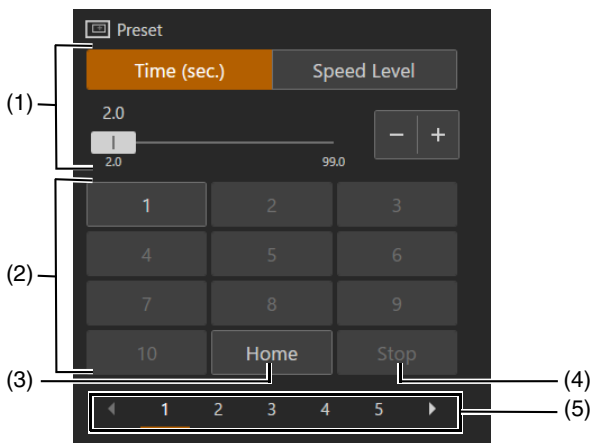
By clicking the operation selection button and selecting [Focus Guide] from the list, the Focus Guide is displayed at the position where the camera video was clicked. The adjustment direction and adjustment amount from the current focus position to the focus position are visually indicated by a guide frame. The position can be changed by clicking.



The guide frame turns green when it is in focus or approaches the in-focus point.

## ■ [Preset]

It is possible to call the presets registered to the camera. Register presets on [Preset/Trace Settings]. For details, refer to "Preset Function" (P. 33).



- (1) **Speed Mode**  
Specify the time or speed to move to the Pan/Tilt/Zoom position. Click [Time (sec.)] to specify the time, or click [Speed Level] to specify the speed. Able to change the value by moving the slider knob or clicking **+** or **-**.
- (2) **Preset number button**  
Click a preset number registered to the camera to call the corresponding preset. Numbers not registered to the camera are indicated in gray.
- (3) **[Home]**  
Click to return the camera to the home position.
- (4) **[Stop]**  
Click during a preset operation to stop the operation.
- (5) **Switch pages**  
11th preset and later are displayed in the 2nd page or later. Click a number to move to the page. Click **▶** to move to one page ahead and click **◀** to move one page back.

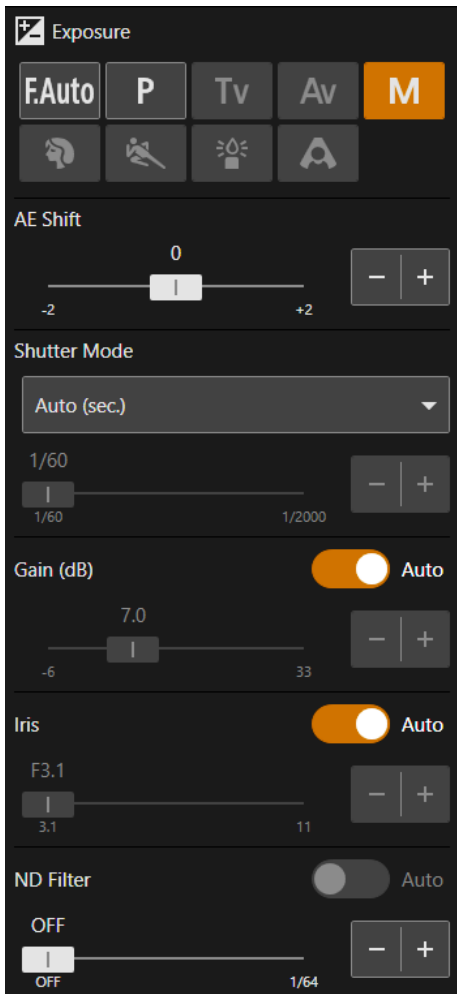
### 🗨 Note

- If the pan/tilt/zoom or focus of the camera is operated while a preset is running, the preset stops. However, another preset can be called while a preset is running.
- Depending on the relationship between the pan/tilt/zoom position before the call and the registered pan/tilt/zoom position, and the [Time] setting, it may not operate within the set time.
- Camera settings other than the pan/tilt/zoom position are reflected immediately when the preset is called.

## ■ [Exposure]

Camera exposure adjustment is available.

In infrared shooting, [Basic] > [Exposure] cannot be set.



### Shooting Modes

Switch shooting modes according to the shooting environment and subject.

#### **F.Auto** (Full auto)

The exposure (shutter speed, gain, iris, etc.) and white balance settings are adjusted automatically.

#### **P** (Program AE)

The exposure (shutter speed, gain, iris, etc.) settings are adjusted automatically. [AE Shift] can be set.

#### **Tv** (Shutter priority AE)

The shutter speed is adjusted manually. The gain and iris are adjusted automatically.

#### **Av** (Iris priority AE)

The iris is adjusted manually. The shutter speed and gain are adjusted automatically.

#### **M** (Manual)

The exposure (shutter speed, gain, iris, etc.) is adjusted manually.

#### **Portrait**

Blurs the background to make the subject stand out.

#### **Sports**

Captures fast moving subjects.

#### **Low light**

Brightly captures subjects in dark locations.



#### **Spotlight**

Captures subjects illuminated by a spotlight beautifully.

## Note

- The exposure settings (iris, shutter speed, gain, etc.) are automatically adjusted for Portrait, Sports, Low Light, and Spotlight. White balance and image quality cannot be operated.
- In Portrait and Sports mode, the captured video may not appear smooth or may flicker.
- For precautions regarding shooting in Low Light, refer to “About Shooting with Slow Shutter” (P. 24).

### [AE Shift]

When one of the [Shutter Mode], [Gain] and [Iris] is set to auto, the exposure can intentionally be compensated to capture subjects either at a brighter or darker exposure. Move the slider knob or click  or  to change the value.

## Note

In infrared shooting, [AE Shift] cannot be set.



### [Shutter Mode]

Adjusting the shutter speed enables to adapt to the shooting environment, making it possible to capture fast-moving subjects (sports, vehicles, etc.) clearly and brighten low-light scenes, etc. Shutter speed can be adjusted in the following modes:



#### [Auto (sec.)]

Automatically adjusts the shutter speed according to the brightness of the video.



#### [Speed (sec.)]

Sets the shutter speed to seconds. The shutter speed can also be set to a value higher than the frame rate. Move the slider knob or click  or  to change the value.



#### [Slow (sec.)]

Sets the shutter speed slower than the frame rate to seconds. This setting is used for shooting in low-light areas. Also, special effects such as “blurring the background” and “adding residual image effects to zoom” are available for shooting a moving subject with pan operation. Move the slider knob or click  or  to change the value. For precautions regarding shooting, refer to “About Shooting with Slow Shutter” (P. 24).

#### [Clear Scan (Hz)]

Sets the shutter speed by frequency. This is used to reduce black bands on the screen, flickering from fluorescent lighting, and to fine tune the brightness. Move the slider knob or click  or  to change the value.

#### [Angle (°)]

Sets the shutter speed at the open angle. Move the slider knob or click  or  to change the value.

#### [Off]

The reference shutter speed of each frame rate is used.



## Note

When shooting in [Slow (sec.)], the focus may not work well in autofocus.



### [Gain]

The amount of amplification of the video amplifier is set as either gain (dB) or ISO sensitivity. [Gain (dB)] and [ISO] are automatically switched according to the type of camera.

#### [Gain (db)]

The value can be changed by moving the slider knob or clicking  or . Also, this value is automatically adjusted when [Auto] is turned on.



#### [ISO]

The value can be changed from the available options. When setting sensitivity, 1/3 steps or 1 step can be selected as the increment. The value can be changed by moving the slider knob or clicking  or . Also, this value is automatically adjusted when [Auto] is turned on.

## Note

- Increasing the gain may cause a slightly grainy screen. Also, irregular colors, white dots, and vertical lines may appear on the screen.
- In infrared shooting, [Gain] cannot be set.

### [Iris]



Adjusts the iris (aperture) according to the brightness of the subject. Move the slider knob or click  or  to change the value. Also, this value is automatically adjusted when [Auto] is turned on.

## Note

- The aperture value that can be set differs depending on the zoom position. Reference aperture value is displayed on the screen.
- By changing the depth of field and blur the background or surroundings to make the subject stand out, set a smaller iris value, and to keep everything from close objects to far-away objects in focus, set a larger iris value.
- If the iris is narrowed down when shooting in a bright location, this can cause blurring. It is possible to prevent blurring by adjusting the shutter speed or ND filter and opening the iris.
- When [AUTO] of the iris setting is turned off, the aperture value of Auto is taken. It does not restore to the aperture value set before [AUTO].
- In infrared shooting, [Iris] is fixed open.

## [ND Filter]

The ND filter allows to open the iris for a video with shallow depth of field even in a bright environment. This is also convenient for avoiding blur caused by a small iris when narrowing down the iris.

Move the slider knob or click  or  to change the value. Also, this value is automatically adjusted when [Auto] is turned on. The slider or [Auto] may not be available depending on the model.

## Note

Changing the ND Filter settings in certain shooting conditions could generate some slight change in coloring. In this case, it is effective to set the white balance when shooting (P. 25).

- **About Shooting with Slow Shutter**

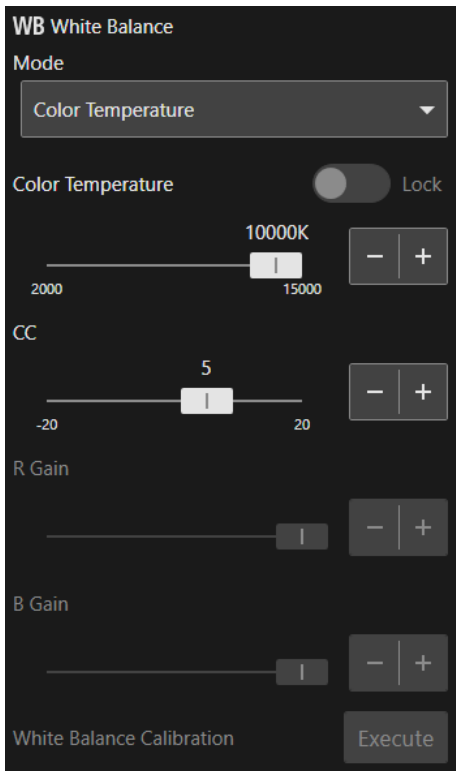
By setting the [Shooting Mode] to manual, shutter priority AE to set a slow shutter speed, or setting it to low light, it is possible to shoot the subject brightly even where the light is insufficient. However, depending on the scene or the subject, the following may occur.

- Noticeable residual image from moving subjects
- Deterioration of image quality
- White spots on the screen
- Autofocus not functioning well



## ■ [White Balance]

Camera white balance adjustment is available.  
In infrared shooting, [Basic] > [White Balance] cannot be set.



### [Mode]

Sets white balance according to the color temperature of light sources such as illuminations and sunlight. Adjustment procedure is as follows:

#### [Auto]

Adjust the white balance so that it is always optimal. The white balance is automatically adjusted as the color temperature of the light source changes.

#### [Color Temperature]

Specify [Color Temperature] to adjust the white balance.

#### [Daylight]

Sets the white balance according to the sunlight.

#### [Tungsten]

Sets the white balance according to tungsten lighting. Use this setting when shooting under tungsten or tungsten colored fluorescent lighting.

#### [Manual]

Set [R Gain] and [B Gain] for the white balance to the desired value. Move the slider knob or click **+** or **-** to change the value.

#### [Set A], [Set B]

Executing [White Balance Calibration] captures the reference white color in the actual shooting environment.

The settings are erased when the camera is restarted or turned on/off. In order to save the settings, register as a preset in the camera's Settings Page.

#### [AWB Lock]

AWB operation stops temporarily when [Lock] is clicked when the mode is set to [Auto]. Clicking [Lock] again resumes AWB operation.

### 🗨 Note

- In infrared shooting, [White Balance] cannot be set.

- When shooting under the following conditions, if the screen color looks unnatural in [Auto], adjust the white balance using [Set A] or [Set B]:
  - Shooting in locations where lighting conditions suddenly change
  - Close-up shooting
  - Shooting a scene with only one color, such as sky, sea, or forest
  - Shooting under mercury lamps and certain fluorescent/LED lights
- If the setting is other than [Auto], and the location or brightness changes or the ND filter is switched, adjust the white balance again.

#### [R Gain], [B Gain]

Adjusts the white balance when [Mode] is set to [Manual]. Move the slider knob or click **+** or **-** to change the value.

#### [Color Temperature]

When [Mode] is set to [Color Temperature], [Daylight] or [Tungsten], move the slider knob or click **+** or **-** to change the value.

#### [CC]

Specifies the CC value (color correction value) to adjust the white balance. The value can be changed by moving the slider knob or clicking **+** or **-**.

#### [White Balance Calibration]

Captures the reference white color when [Mode] is set to [Set A] or [Set B]. Illuminate a gray card or white subject (white paper, etc.) with a light source and click [Execute] while the subject fills the screen.

## ■ [Trace]

The traces registered to the camera can be executed from the main screen.

Simultaneous operation is available when multiple cameras are operated.

For details on trace, refer to “Trace Function” (P. 34).



Select the registered trace number to move the camera to operate to the trace start position.

Also, trace name and the status of trace are displayed under the camera name in the video display area.

When status of trace of all cameras is [Ready], the [Execute] button becomes enabled.

Click [Execute] to execute the trace recorded by the camera.

#### Note

For cameras without any trace record, trace name or trace status will not be displayed. Also will not be able to operate by clicking [Execute].

## [Details] Tab

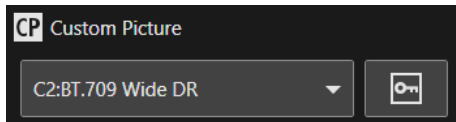
---

Provides more advanced settings than the [Basic] tab.

The [Details] items are enabled only when there is only one camera to operate.

### ■ [Custom Picture]

Registered custom pictures can be selected.



#### [Custom Picture]

Select the custom picture to use for shooting from the pull-down menu.

#### [Protect

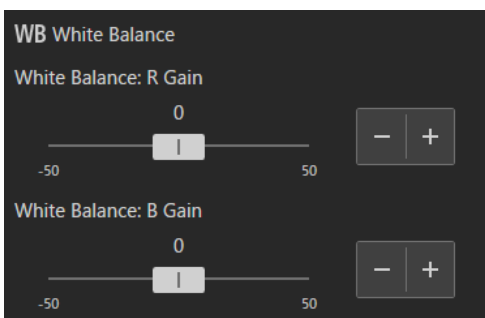
Switches protection on/off. When protection is on, the detailed items of [White Balance], [Image Quality] and [Exposure] cannot be adjusted.

#### Note



For details on custom pictures, refer to the Settings Guide of the camera.

### ■ [White Balance]



In infrared shooting, [Details] > [White Balance] cannot be set.



#### [White Balance: R Gain]

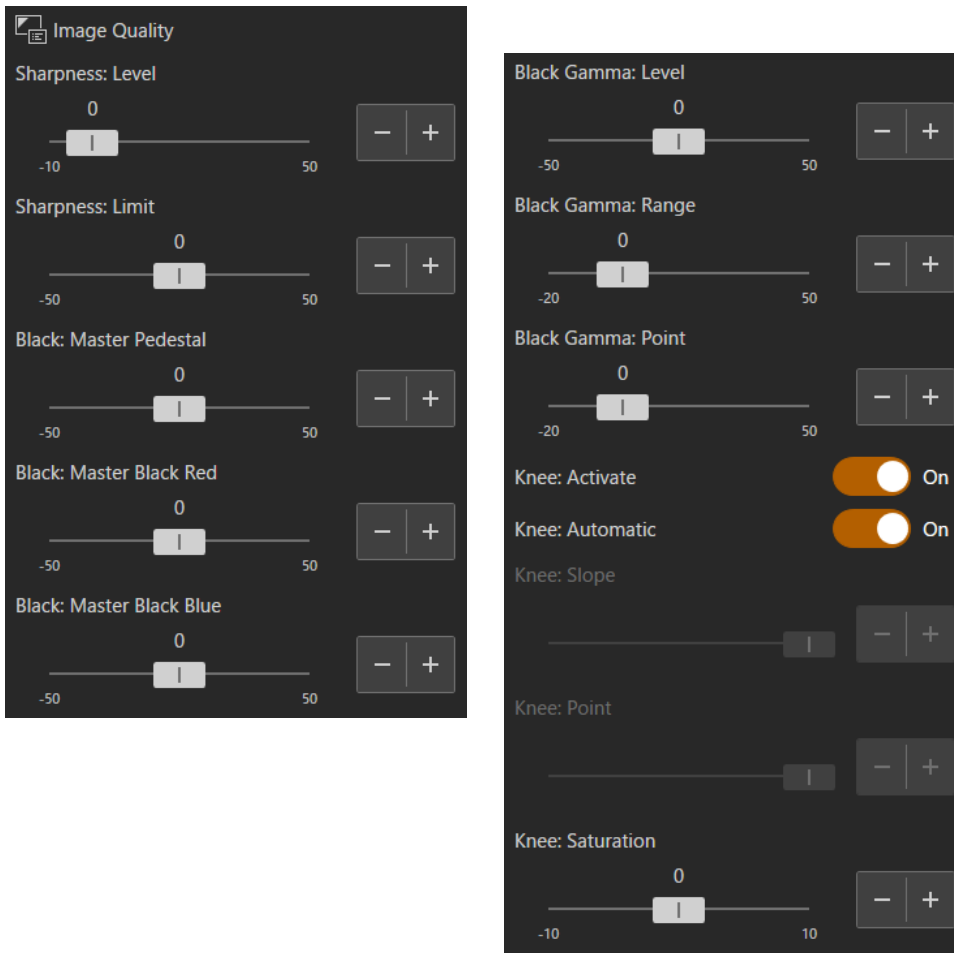
Adjusts the shift amount of the red tint in the white balance. Move the slider knob or click  or  to change the value.

#### [White Balance: B Gain]

Adjusts the shift amount of the blue tint in the white balance. Move the slider knob or click  or  to change the value.

## ■ [Image Quality]

In infrared shooting, [Details] > [Image Quality] cannot be set.



### [Sharpness: Level]

Adjusts the level of edge enhancement. Move the slider knob or click **+** or **-** to change the value.

### [Sharpness: Limit]

Adjusts the level at which the edge enhancement is limited. Move the slider knob or click **+** or **-** to change the value.

### [Black: Master Pedestal]

Adjusts the black level.

The higher the value, the vivid the dark area will be and less contrast. Decreasing the number makes the black levels flat. Move the slider knob or click **+** or **-** to change the value.

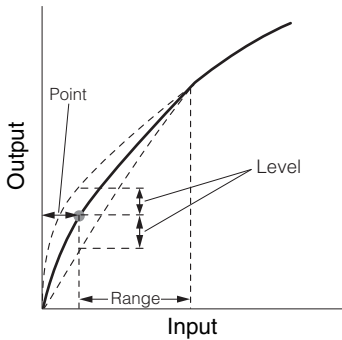
### [Black: Master Black Red], [Black: Master Black Blue]

Corrects R and B individually for black color casts. Move the slider knob or click **+** or **-** to change the value.

**[Black Gamma: Level], [Black Gamma: Range], [Black Gamma: Point]**

Corrects gamma in shadow areas. By changing each value, the gamma curve on the black side within the range shown in the figure below is adjusted. Move the slider knob or click **+** or **-** to change the value.

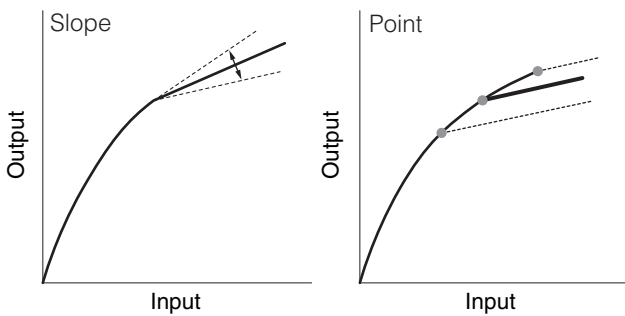
- Level: Height from the standard gamma
- Range: Width from the Point
- Point: Vertex position



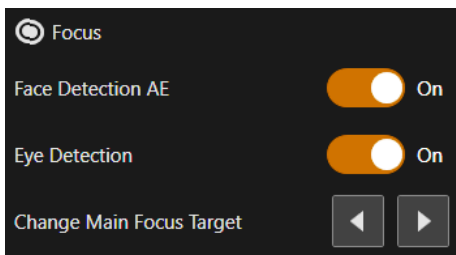
**[Knee: Activate], [Knee: Automatic], [Knee: Slope], [Knee: Point], [Knee: Saturation]**

Compresses the highlighted areas to suppress the occurrence of blown highlights. Move the slider knob or click **+** or **-** to change the value.

- Activate: Enables knee adjustment.
- Automatic: Enables automatic knee adjustment.
- Slope: The slope of the knee.
- Point: Indicates the knee point.
- Saturation: Adjusts the color intensity in the highlighted areas.



**[Focus]**



**[Face Detection AE]**

When [Face Detection AE] is turned on, the face of the main subject is detected and brightness is automatically adjusted.

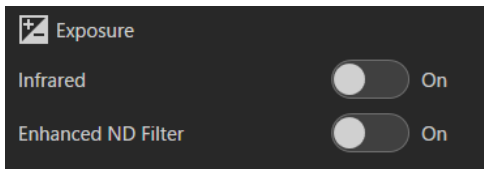
**[Eye Detection AF]**

When [Eye Detection AF] is turned on, the eyes of the main subject are detected, the focus is automatically adjusted, and the subject is tracked even if it moves.

**[Change Main Focus Target]**

The main subject can be changed by clicking **◀** or **▶** at the right side at the top of the screen.

## ■ [Exposure]



### [Infrared]

Select whether to perform infrared shooting. In infrared shooting, since the near-infrared light sensitivity is higher compared to normal shooting, it is possible to shoot brightly even the dark scenes.

### 🗨 Note

- When the infrared is [On], the following items cannot be set.
  - [Basic] > [Exposure], [White Balance]
  - [Details] > [White Balance], [Image Quality], [Exposure] > [Enhanced ND Filter]
- When the infrared is [On] in manual focus, the focus will be fixed once in auto focus, then return to manual focus.
- Depending on the light source, auto focus may not function properly during zoom operation.
- Because of the significantly increased near-infrared sensitivity in infrared shooting, no strong light or heat source should be turned toward the lens when switching to infrared shooting.

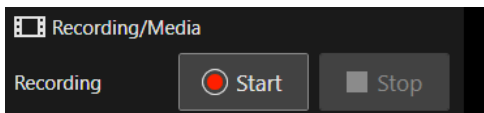
### [Enhanced ND Filter]

Select whether to use the enhanced ND filter. The enhanced ND filter allows to open the aperture for a video with shallow depth of field even in a bright environment. This is also convenient for avoiding blur caused by narrowing down the aperture.

### 🗨 Note

In infrared shooting, the [Enhanced ND Filter] is fixed to off.

## ■ [Recording/Media]



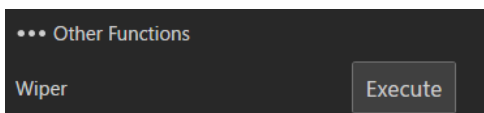
### [Start Recording]

Starts recording of video.

### [Stop Recording]

Stops recording of video.

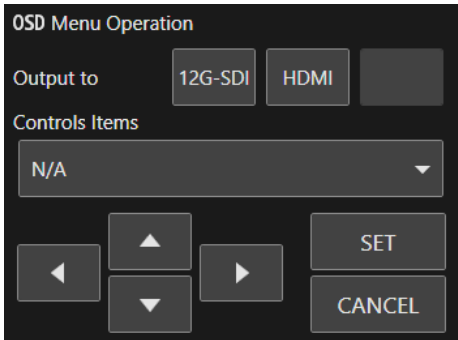
## ■ [Other Functions]



### [Wiper]

Operate the wiper in order to remove the water droplets or dust adhered on the lens protector. By clicking [Execute], the wiper makes one to-and-fro movement and stops.

## ■ [Menu Operation]



### [Output to]

Selects the destination to output the menu to.

### [Controls Items]

Select [N/A] [MENU] [Custom Picture] or [FUNC] from this pull-down menu.

Operate the [▲] [▼] [▶] [◀] [SET] [CANCEL] buttons while viewing the menu that is displayed.

## ■ [Assignable Button]




### [Assignable Button]

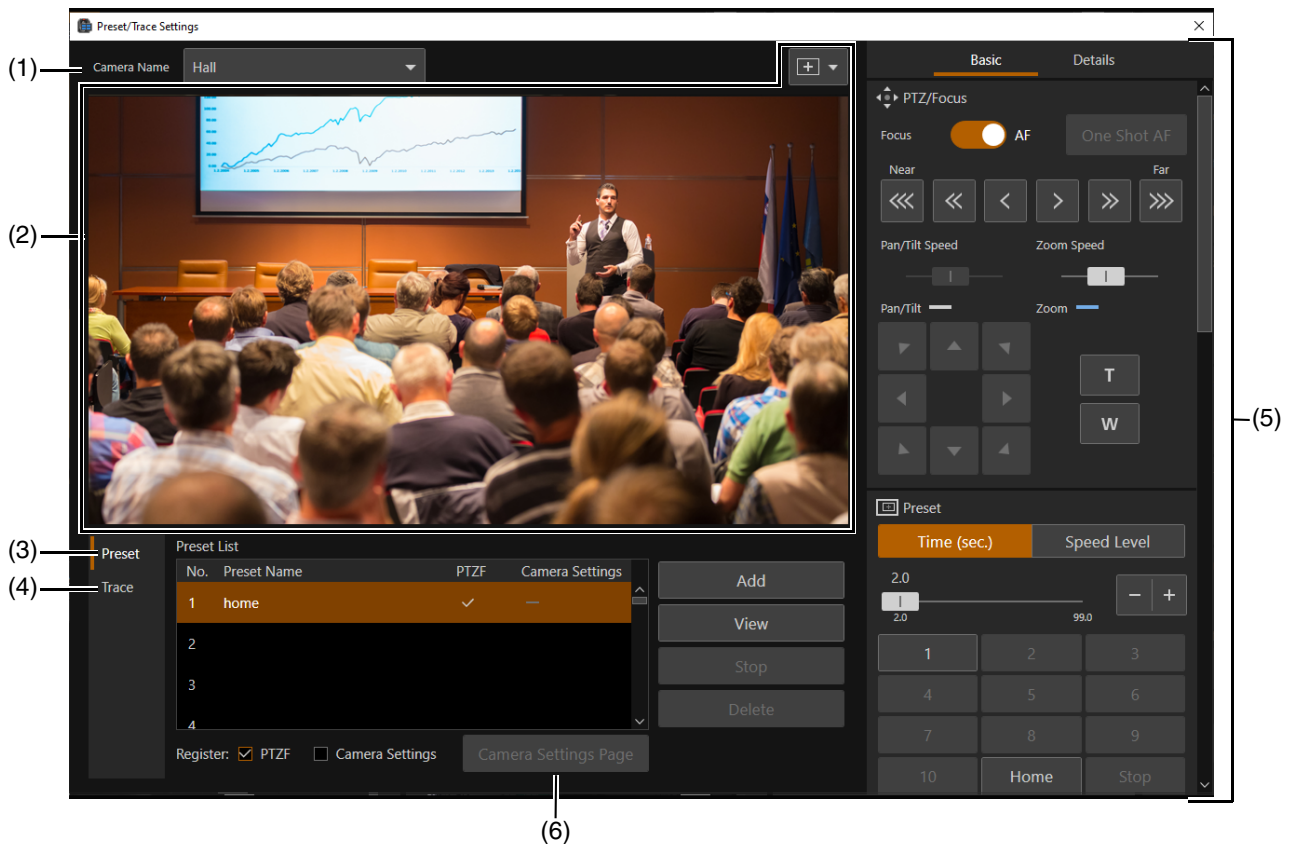
Selects the assignable button to be used.

### Note

For details on assignable buttons, refer to the Settings Guide of the camera.

# Using Preset/Trace Functions

Click on the menu  and select [Preset/Trace Settings] to open the [Preset/Trace Settings] dialog. By clicking [Preset] or [Trace], the bottom of the dialog can be switched accordingly.



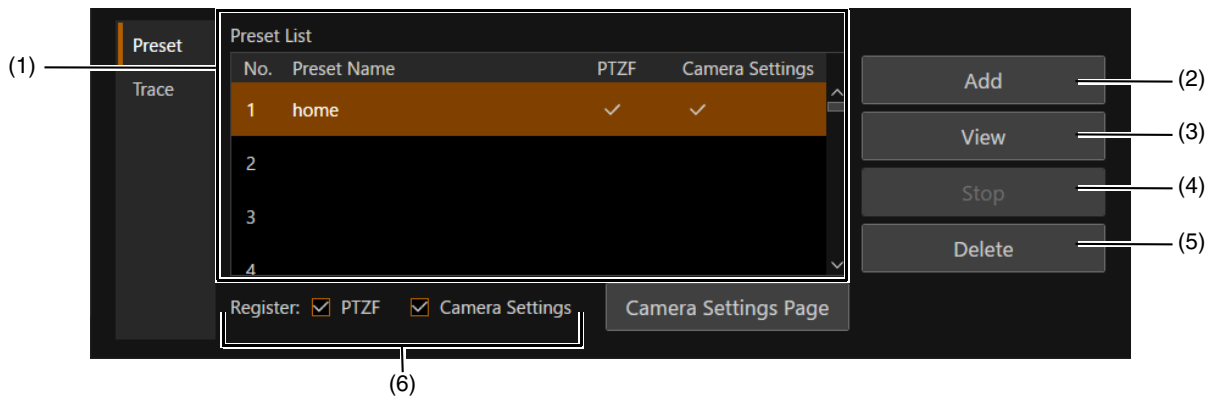
- (1) [Camera Name]  
Displays the name of registered camera.
- (2) Video display area  
Displays the video of the camera selected in [Camera Name]. The operation of the screen is the same as that of the main screen's video display area. For details, refer to "Displaying Camera Video in the Video Display Area" (P. 15).
- (3) [Preset]  
Register, call, and delete presets. For details, refer to "Preset Function" (P. 33).
- (4) [Trace]  
Record, execute, and delete traces. For details, refer to "Trace Function" (P. 34).
- (5) Camera operation area  
Camera operations and adjustment of angle of view are available here. The main operations are the same as in the main screen of the camera operation area. For details, refer to "Operating Cameras" (P. 19).
- (6) [Camera Settings Page]  
Launches a web browser and displays the camera's Settings Page. An administrator user name and password are required to display the Settings Page.



# Preset Function

Able to register or delete presets from this software.

## ■ [Preset] tab



- (1) **Preset List**  
Displays [Number], [Preset Name], and [Register] of the presets as a list. Change the [Preset Name] by double-clicking [Preset Name] and entering an arbitrary name.
- (2) **[Add]**  
Registers a preset and adds it to the list. For more information, refer to “Registering Presets” (P. 33).
- (3) **[View]**  
Click to display the currently selected preset.
- (4) **[Stop]**  
Click during a preset operation to stop displaying the preset.
- (5) **[Delete]**  
Delete a preset by selecting it from the [Preset List] and clicking [Delete].
- (6) **[Register]**  
Select the setting value to register for the preset. If [PTZF] is checked, the pan/tilt/zoom position and [Focus] are registered as presets. If [Camera Settings] is checked, the following items are registered as presets:
  - [Basic] > [Exposure], [White Balance]
  - [Details] > [White Balance], [Image Quality]

## ■ Registering Presets

To register a preset, follow the procedure below.

- 1** In the [Preset/Trace Settings] dialog, open the [Preset] tab.
- 2** Select the camera from the [Camera Name] list for which to register a preset.  
Camera video appears in the video display area.
- 3** Use the camera operation area to set a camera to register the presets.  
Adjust the camera angle to the position where desired to register the preset and adjust image quality, by operating the camera operation area. Also, check the settings to register in [PTZF] or [Camera Settings] under [Preset List].
- 4** Select the desired preset number to register.  
If a number that has already been registered is selected, the contents will be overwritten.
- 5** Click [Add].

## Note

- [home] is the setting when the camera was launched (home position). It can be overwritten but cannot be deleted. Overwriting changes the position that is called up when [Home] is clicked in the [Preset] of the camera operation area.
- Able to register up to 100 presets (including home position) in the camera.

## Calling a Preset

Select the preset to call from [Preset List] and click [View] to reflect the preset settings on the camera. Check in the video display area.

Preset display can also be executed from the camera control area on the main screen. For details, refer to “[Preset]” (P. 21).

## Note

When clicking [View] to call a preset, the time to move to the pan/tilt/zoom position, and speed are reflected from the specified settings in [Preset] of the camera operation area.

## Deleting a Preset

Select the preset from the [Preset List] and click [Delete] to delete the selected preset from the camera.

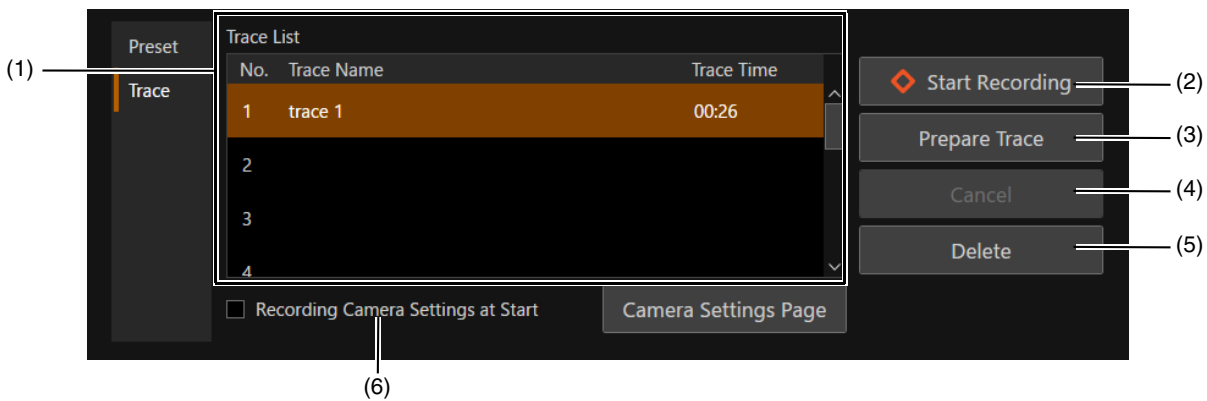
## Trace Function

Trace is a function that can register up to 10 operations including camera pan, tilt, zoom operations, focus, and video quality, for activating when necessary.

Since a trace is registered to a camera, it can be executed from any computer.

Note that the pan, tilt, zoom, and focus operation by the trace function cannot be reproduced with exact precision.

## [Trace] Tab



- (1) **[Trace List]**  
Displays the trace [Number], [Trace Name], and [Trace Time] in a list. Double-click [Trace Name] and enter an arbitrary name to change [Trace Name].
- (2) **[Start Recording]**  
Click to start trace recording (P. 35).
- (3) **[Prepare Trace]**  
Click to prepare the execution of the recorded trace (P. 35).
- (4) **[Cancel]**  
Click while recording or executing a trace to cancel these operations.
- (5) **[Delete]**  
Select the trace to be removed in [Trace List], then click [Delete] to remove it.
- (6) **[Recording Camera Settings at Start]**  
Enter a check in the checkbox to save the video quality adjustment settings at the start of a trace. The saved white balance and exposure settings are applied when a trace is executed.

## ■ Recording a Trace

A trace can be recorded by the following steps:

- 1** In the [Preset/Trace Settings] dialog, open the [Trace] tab.
- 2** In the [Camera Name] list, select the camera for recording a trace.  
Camera video appears in the video display area.
- 3** Use the camera operation area to set a camera to start recording a trace.  
Use the camera operation area to set the camera angle to the trace recording start position.  
Also, to record the video quality settings when starting to record a trace, enter a check in the [Recording Camera Settings at Start] checkbox and adjust the video quality in the camera operation area.



### Important

If the video quality is adjusted while recording a trace, the changes will not be recorded.

- 4** Select the trace number to record.  
If a registered number is selected, the content will be overwritten.
- 5** Click [Start Recording].  
The button display changes to [Stop Recording] and **REC** and the elapsed time after clicking [Start Recording] is displayed above the video display area.  
Recording starts when the operations such as pan, tilt and zoom are performed.
- 6** Click [Stop Recording].  
Ends the recording.



### Note

- The maximum recording time for a single trace is 5 minutes. Recording will stop automatically 5 minutes after clicking [Start Recording].
- It is also possible to record the pan, tilt, zoom, and focus operations recalled in the preset.
- By clicking [Cancel] while recording a trace, recording stops and recorded data is discarded.
- If the camera is operated from another device while recording a trace, the result of the operation by another device will also be included in the recorded trace.

## ■ Executing a Trace

By executing a trace, the recorded pan, tilt, zoom and focus operations are reproduced.

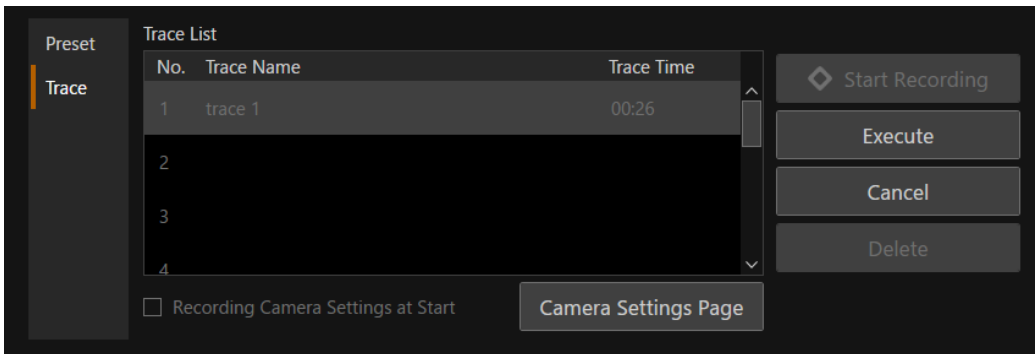


### Note

- If [Recording Camera Settings at Start] checkbox is not checked when recording a trace, the camera video quality setting when the trace is executed will be applied. Even if [Recording Camera Settings at Start] checkbox is checked in the trace, the camera video quality setting can be changed during the execution.
- Only a trace for a single camera can be executed in the [Preset/Trace Settings] dialog. To execute traces from multiple cameras simultaneously, operate the cameras using [Trace] in the camera operation area of the main screen. For details, refer to "[Trace]" (P. 26).

## 1 Select the registered trace and click [Prepare Trace].

The camera moves to the start position. Once the camera is moved to the start position, the button display changes to [Execute].



## 2 Click [Execute].

The trace is executed.

### Note

Click [Cancel] to cancel the trace execution.

# Using a Keyboard or Joystick


Cameras can be operated using a keyboard or joystick by this software.

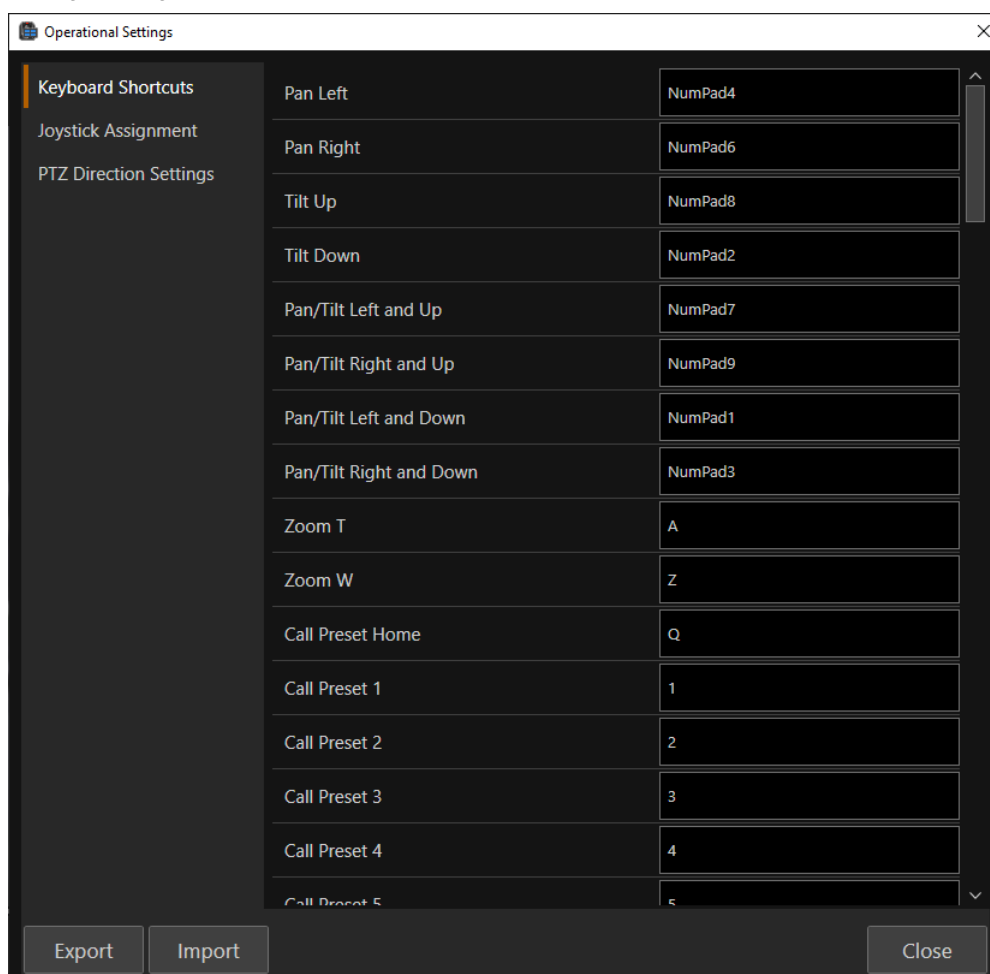
Settings for operating cameras using a keyboard or joystick can be changed according to use.

## Assigning Arbitrary Keys (Keyboard)

Keys are assigned to each function available for the keyboard in the initial settings (P. 38).

To change the assignments or use the keyboard for some functions that do not have an assigned key, settings can be changed as follows.

- 1 Click the menu , select [Operational Settings] to display the [Keyboard Shortcuts] screen in the [Operational Settings] dialog.



- 2 Click the entry field on the right side of the applicable function in the [Keyboard Shortcuts] screen, then press the key to assign.  
The key name is automatically entered.  
The assigned key is saved immediately.

### Note

- The assigned key cannot be changed for functions with the input fields displayed in gray.
- Cannot be assigned to some keys such as Tab and Shift. For keys that cannot be assigned, the key name will not be displayed even when selecting the input field and pressing the key.
- If the same key is assigned to two functions, the text in the assigned key turns red and an error message appears on the newly assigned function. Press the Esc key to revert to the original key assignment. If moving on to another function entry, the key will be applied to the newly assigned function and the original function assignment will be cleared.

**3** Once changes are complete, click [Close] to close the [Operational Settings] dialog.



**Note**

The [Keyboard Shortcuts] and [PTZ Direction Settings] settings can be exported or imported by clicking [Export] or [Import]. For details, refer to “Exporting or Importing the Settings” (P. 42).

## List of Operations Available on a Keyboard

The functions available as keyboard operations and default assigned keys are as follows:

[Keyboard Shortcuts] screen display name	Key
Pan Left	NumPad4
Pan Right	NumPad6
Tilt Up	NumPad8
Tilt Down	NumPad2
Pan/Tilt Left and Up	NumPad7
Pan/Tilt Right and Up	NumPad9
Pan/Tilt Left and Down	NumPad1
Pan/Tilt Right and Down	NumPad3
Zoom T	A
Zoom W	Z
Call Preset Home	Q
Call Preset	0 to 9*
Next Preset Page	E
Previous Preset Page	W
Auto Focus On/Off	—
One Shot AF	—
Change Main Focus Target Left	—
Change Main Focus Target Right	—
Focus Near (Slow Speed)	—
Focus Near (Medium Speed)	—
Focus Near (Fast Speed)	—
Focus Far (Slow Speed)	—
Focus Far (Medium Speed)	—
Focus Far (Fast Speed)	—
Pan/Tilt Speed +	—
Pan/Tilt Speed -	—
Zoom Speed +	—
Zoom Speed -	—
AE Shift +	—
AE Shift -	—
Shutter Speed +	—
Shutter Speed -	—
ISO/Gain +	—
ISO/Gain -	—
Iris Auto On/Off	—
Iris +	—
Iris -	—

[Keyboard Shortcuts] screen display name	Key
ND Filter +	—
ND Filter –	—
Color Temperature +	—
Color Temperature –	—
Prepare Trace	—
Execute Trace	—
Menu Operation: Up	—
Menu Operation: Down	—
Menu Operation: Left	—
Menu Operation: Right	—
Menu Operation: SET	—
Menu Operation: CANCEL	—
Assignable Button 1	—
Assignable Button 2	—
Assignable Button 3	—
Assignable Button 4	—
Select Camera “#” Only	F1 to F9 (function key)
Select/Remove Camera #	Control + F1 to F9 (function key)
Select All Cameras	Control + A
Clear All Camera Selections	Escape


\* Preset displays the page corresponding to the target preset number in [Preset] of camera operation area, and enables to call the preset by pressing the key corresponding to the first digit of the number.  
For example, by pressing “5” when the preset numbers 21 to 30 are displayed, the preset number 25 will be called.  
For details on screen display such as changing pages, refer to “[Preset]” (P. 21).

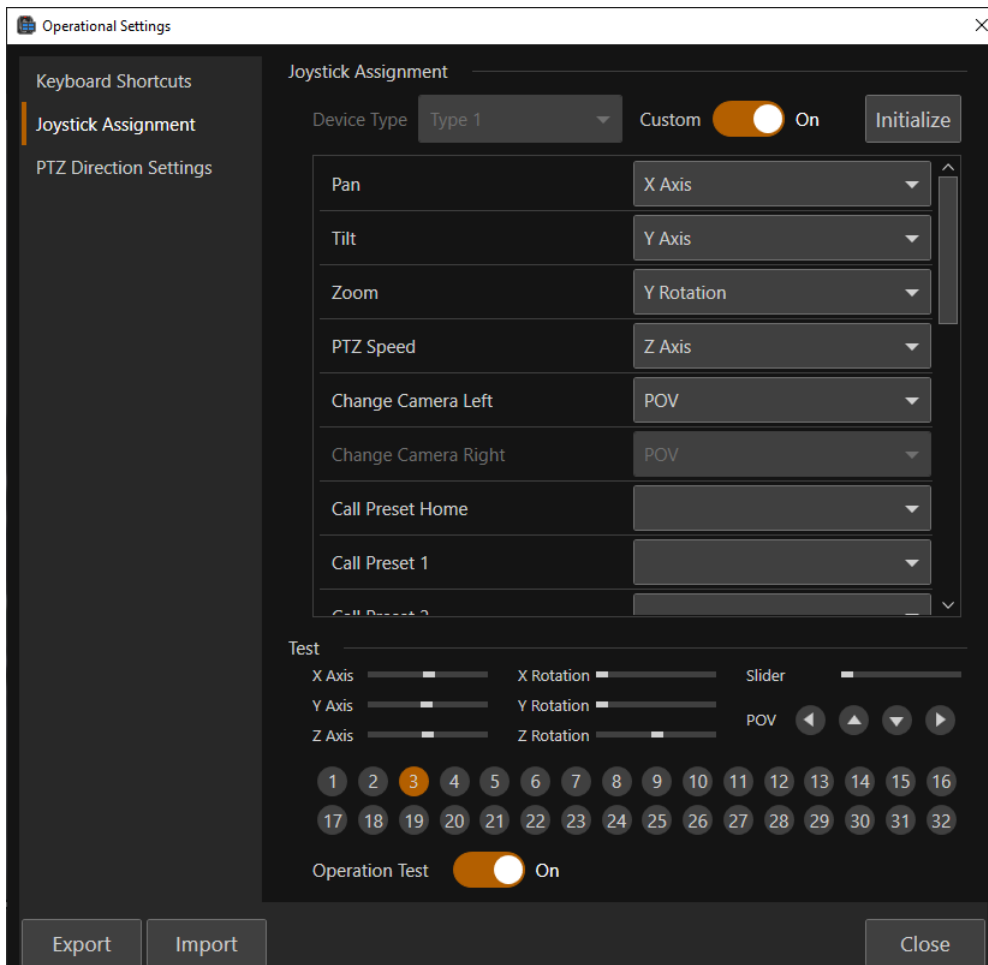
 **Note**

- Key assignment for items displayed in gray cannot be changed from their initial settings.
- Press function keys F1 to F9 to operate a single camera from camera number 1 to 9.
- By pressing a function key F1 to F9 while pressing Ctrl key, the selected camera will be added for operation to the currently operated cameras. By selecting a camera already applicable for operation while pressing Ctrl key, it will be removed from operation.

# Assigning Arbitrary Keys (Joystick)

Before assigning keys, connect the joystick and PC.

- 1 Click the menu , select [Operational Settings] to display the [Joystick Assignment] screen in the [Operational Settings] dialog



## [Device Type]

- Auto Detection
- Type 1
- Type 2
- Type 3

## [Custom]

When [Device Type] is set to other than Auto Detection, a function can be assigned to any button on the joystick.

## [Initialize]

The button assignments are initialized.

- 2 Select [Custom].
- 3 Press the button on the joystick to assign a function to.

The button number on the joystick and direction of operation are displayed in orange on the operation test screen.

Select the displayed number from the pull-down menu, and assign the function to the button.


## Note

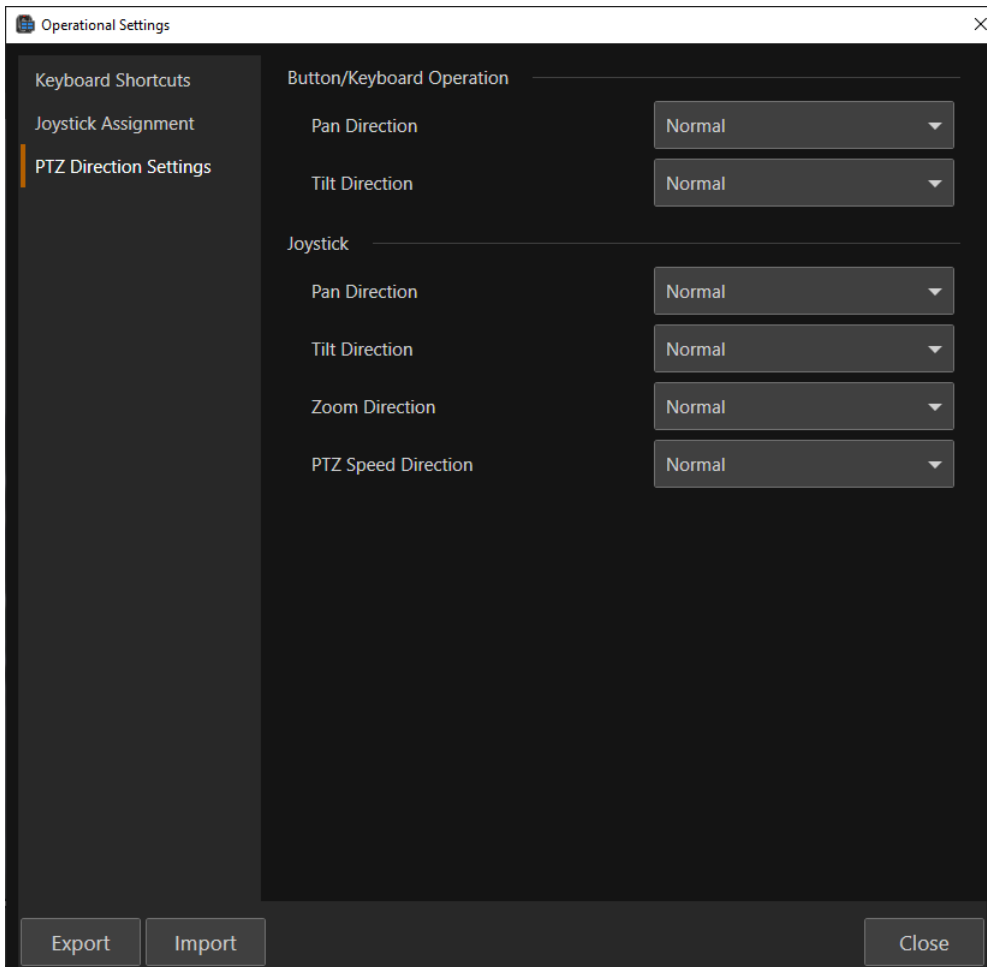
For details on the joystick and PC connections and joystick operations, refer to the Settings Guide of the respective product. Note that all joystick operations are not guaranteed.



## Configuring Pan/Tilt/Zoom Direction Settings

The camera pan/tilt/zoom direction can be changed when performing pan/tilt/zoom operations with a joystick or in the main screen.

Click the menu , select [Operational Settings] to open the dialog window, then select [PTZ Direction Settings].



### [Button/Keyboard Operation] and [Joystick]

The direction for pan/tilt/zoom operations can be changed.

When [Pan Direction] is [Forward], tilting the joystick to the right will move the camera clockwise. When [Tilt Direction] is [Forward], tilting the joystick toward the user will tilt the camera forward. Also, when [Zoom Direction] is [Forward], tilting the joystick toward the user or counterclockwise will move zoom in the wide angle direction.

[PTZ Speed Direction]: Sets the direction of the operation assigned to "PTZ Speed" at Joystick Assignment. When [PTZ Speed Direction] is set to [Normal], the PTZ speed increases by operating the slider inwards.

### Note

- The [Keyboard Shortcuts] and [PTZ Direction Settings] settings can be exported or imported by clicking [Export] or [Import]. For details, see "Exporting or Importing the Settings" (P. 42).
- For details on the joystick and PC connections and joystick operations, refer to the Settings Guide of the respective product. Note that all joystick operations are not guaranteed.

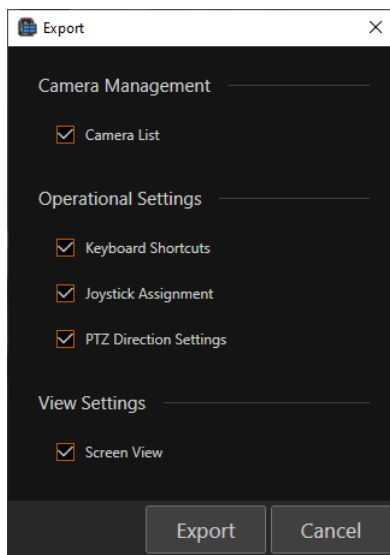
# Exporting or Importing the Settings

Some of the settings in this software can be exported or imported in json format.

## Exporting Settings

Click the menu  and select [Maintenance] > [Export].

When the [Export] dialog appears, select the item to export and click [Export]. Once clicked, set where to save the file and the file name to export on the dialog screen.



Contents which can be exported are as follows:

Name	Setting details
[Camera List]	Registered camera information such as [Camera Name] and [Destination Address] (P. 11)
[Operational Settings]	[Keyboard Shortcuts], [Joystick Assignment] and [PTZ Direction Settings] (P. 37)
[Screen View]	Camera list, show/hide camera operation area, selection of displayed items in camera operation area, main screen layout settings (P. 9)

## Importing Settings

Click the menu  and select [Maintenance] > [Import].

On the dialog screen that appears when [Import] is clicked, select the file to import and click [Open] to display the [Import] dialog. In the [Import] dialog, select what to import.

For details on settings that can be imported, refer to “Exporting Settings” (P. 42).

# Troubleshooting

Before contacting the retailer from where the product was purchased or a Canon sales representative, check the following items.

## Note

- For information on troubleshooting for the camera, controller, or switcher, refer to each manual.
- Some features and settings are not supported depending on the camera you are using.

Problem	Solution
Cannot add camera	<ul style="list-style-type: none"> <li>• Check the Camera's Settings Page to see if the user account with registered cameras has been granted video streaming video transmission privileges.</li> <li>• If [Enable SSL Communications] is checked, make sure that the camera and computer can communicate with the SSL/TLS on the Camera's Settings Page. For details, refer to the Settings Guide of the camera.</li> </ul>
Cannot connect to camera	<ul style="list-style-type: none"> <li>• Check if the camera power is on.</li> <li>• Check the Camera's Settings Page to see if the user account with registered cameras has been granted video streaming video transmission privileges.</li> </ul>
Camera video not displayed	<ul style="list-style-type: none"> <li>• Check the network communication status.</li> <li>• Check if the camera and the computer on which the software is installed are connected to the network correctly.</li> <li>• Check the Camera's Settings Page to see if the user account with registered cameras has been granted video streaming video transmission privileges.</li> <li>• In your security software, configure the exception settings for the camera or this software, whichever is causing the problem.</li> </ul>
Camera cannot be operated from the operation area	Check the Camera's Settings Page to see if the user account with registered cameras has been granted camera control privileges.
Face frame and tracking frame are not displayed	<ul style="list-style-type: none"> <li>• Check the settings of this software and the subject. For details, refer to "Clicking on the Screen" (P. 20).</li> <li>• It may not be possible to detect the face or track the subject due to the following reasons. For details, refer to the camera's user manual. <ul style="list-style-type: none"> <li>– When digital zoom is in use</li> <li>– When digital tele-converter is on</li> <li>– Shutter speed slower than 1/30 sec. (frame frequency at 59.94/29.97 Hz), slower than 1/25 sec. (at 50.00/25.00 Hz), or slower than 1/24 sec. (at 23.98 Hz).</li> </ul> </li> </ul>
Cannot call a preset	Presets cannot be called while the color bars are being outputted or the washer is being used.
[Time (sec.)] and [Speed Level] cannot be specified when calling presets	Make sure that the camera firmware is up to date.
Trace recording was interrupted	The camera could have been operated from the Camera Settings Page or another device. Make sure that the camera is unable to be operated when recording a trace.
Cannot execute a trace	Trace cannot be executed while the color bars are being outputted.
Unable to access the Camera's Settings Page	Make sure that the camera supports the default web browser being used.
Error occurs during import	Check if the import file and import selection are correct.

